Language Acquisition: Theories and Implications for Parental Roles

An Honors Thesis (HONRS 499)

by

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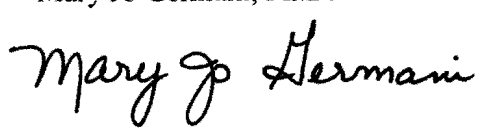

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Abstract

A common question often asked by parents to speech pathologists involves how they can make sure their children learn language alongside same-age peers. Learning to talk is a huge milestone in the life of a child and his or her parents. There are several theories regarding language acquisition including the psycholinguistic approach, the sociolinguistic approach, and behaviorism. A study of these theories can lead parents and caregivers to find out how their own examples and efforts can contribute to the language learning of children with whom they have contact. This thesis will show how the environment of a child can and does play a large role in language acquisition and how parents and caregivers can take the most advantage of that. Main suggestions include the use of exaggerated intonation and other speech characteristics with "parentese" when speaking with children, speaking to children in utterances they can understand, and repeating and expanding upon the speech of children. The research and statistics presented here pertaining to language development are meant to be a learning tool for current or prospective parents who are concerned about language acquisition and want to make sure their children have the best environment possible in which to develop speech.

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Language Acquisition:

Theories and Implications for Parental Roles

One of the most intriguing accomplishments in the lives of human beings is the acquisition of language. By the age of three most children have learned all the intricacies of the language spoken by those around them and after that age, language is being constantly refined through use (Cattell, 2000). There is no way to be certain how language is acquired and used by growing children but there are several ideas.

Three major theories have been studied regarding language acquisition. One theory was led by the linguist Noam Chomsky (1968) and it was dubbed the psycholinguistic approach. His theory, also called mentalism or nativism, involves language learning being an innate process. He purported that children are born with an area in the brain containing pre-existing language rules that help them acquire language easily right from birth. A second theory, the sociolinguistic approach, involves the studies of child development researcher, Jean Piaget (1950). This theory concludes that language evolves as a normal part of child development, each new advancement being based on preceding developmental stages. It also asserts that language comes about as a means to an end in that children use language to get what they want from their surroundings to fulfill needs and desires. Behaviorism is the third theory, which was led by the work of B. F. Skinner (1957). He based his ideas on language acquisition on his research of operant conditioning. He determined that language is acquired because stimuli in the environment cause speech and the speech used, if correct, is reinforced. If incorrect, the following productions are shaped by others until the speech becomes more appropriate. The desire to be reinforced causes children to continue using speech in the correct manner, thus developing their language.

However children acquire language, the steps in the process are still the same; sounds are learned in a certain order and grammatical structures are mastered according to documented developmental milestones. These developments in speech and language can be affected by outside factors that may help or hinder their acquisition. Many of these influences come from the surrounding environment. Among several factors problems during birth, poor nutrition, socioeconomic status, family size and parental interactions all play a part in the growing speech and language of children.

Since there is no way to know how language is acquired and there are so many factors that can affect that acquisition, it is important for parents and caregivers to understand how they can help children learn to properly use language. They need to know how their actions negatively and positively affect speech and language so that they make helpful contributions to the learning of the children in their care. Learning what benefits children in regards to language acquisition and learning what to avoid when communicating with them is important to help all children develop language according to developmental milestones.

Psycholinguistic Approach

During the 1950's and 1960's there was a turn in linguistic studies towards language development. This caused the formation of the psycholinguistic approach to language acquisition. This approach focuses on the mental processes that bring about language forms. According to Noam Chomsky (1968), every human is biologically pre-programmed to learn grammar. Speakers learn from the mistakes they make and naturally increase their grammatical knowledge bases through the language acquisition device (LAD) in the brain (Howard & Hulit, 2001). The LAD is separate from other areas of the brain important to speech. The primary auditory area takes in sounds, Wernicke's area causes what is heard to be understood as

language, Broca's area produces speech and the motor area is responsible for moving the muscles of the speech mechanism to produce different sounds (Howard & Hulit, 2001). The theory that language is innate is based on the fact that language is learned by most humans even in some cases of those with severe physical difficulties. Descartes, a seventeenth-century French philosopher, stated this is because the brain finds ways to acquire and use language no matter how inefficient the body may be for normal communication. Descartes asserted that language must be innate because of two reasons: 1) language is universal and 2) language is essential to survival (Cattell, 2000). Mentalism has the mind as the key player in acquiring language. It is a very old theory that can be traced as far back as Plato yet is still being researched and taught by many (Cattell 2000).

Chomsky believed that every speaker has knowledge of language at birth. This knowledge is called a person's linguistic competence (Cattell, 2000). Linguistic competence is not in conscious thought but rather it is something that lies dormant in the mind in the language acquisition device and in unconscious memories (Cattell, 2000). Linguistic competencies are what help to form the natural grammar of speakers. These competencies include all of the phrase structure rules for grammar such as the fact that all languages have sentences and nouns (Cattell, 2000). Owens (1988) added that one would assume, because children have an innate knowledge of language rules, they would first speak in sentences that represent these guidelines. After researching this was found to be true; early utterances primarily consist of phrase structure rules. It must be noted, however, that children still need linguistic input from their surroundings in order to activate the LAD and start acquiring and using their language. As a large part of his proof, Chomsky pointed out that even deaf children babble. Since they cannot possibly hear the language around them, their language must come from inside the brain (Howard & Hulit, 2001).

According to Chomsky, humans do not learn language depending upon the size of their general intelligence. He said that language is processed in its own part of the brain, the LAD, so that no matter how intelligent two people are, they will acquire language along relatively the same timescale. He supports this theory by showing how by the age of four or five most children have acquired all the grammatical essentials of the language around them, not only children who are very intelligent (Cattell, 2000).

To further show the innateness of language, Cattell (2000) adds that there are 5,500 to 6,000 languages on the earth and children can acquire any one of them to which they are exposed at a young age. When a child is exposed to the language of his or her surroundings, it triggers the subconscious knowledge about language located in his or her brain and this leads to the quick grasp of whichever language the child will speak. If exposed to more than one language during their first three years, children will acquire all of them with ease.

Sociolinguistic Approach

Soon after the psycholinguistic theory was introduced another idea came into being, which was spurred by child development researcher, Jean Piaget (1950). His research is part of the sociolinguistic theory. The main concepts behind this theory were based on Piaget's research of cognitive development and its four stages: sensorimotor, pre-operational, concrete operational, and formal operational. He asserted that language development was a part of general cognitive growth (Cattell, 2000). Although Piaget did not focus much of his own time on language development studies, several of his followers have taken his theories and applied them to language acquisition.

To understand much of the reasoning behind the application of Piaget's theory of cognitive development to language acquisition, one must have a basic background on the first

two stages. All of the following information about Piaget's stages comes from Cattell (2000). The sensorimotor stage of development comes first and lasts from birth to approximately age two. It involves the reflexes common in babies such as sucking and grabbing. When children go to perform actions, they follow through what Piaget calls a schema. For instance, when picking up an object a child will "reach out a hand, open the hand, bring it into contact with the object, close the hand, lift the object and draw the hand containing the object back to the body" (p. 46). These schemas are built surrounding all actions children perform and they become more complex with time. Another important advancement during this stage is that of object permanence, which helps a child to think of objects when they are not present, such as a missing toy the child wants. Object permanence also allows children to compare events when they are not currently in progress. The pre-operational stage lasts from approximately eighteen months to seven years of age. The main accomplishment during this stage is constructivism, which involves a child being able to take two objects and interpret the differences and similarities between them.

It should be noted that the second stage of cognitive development begins at the same time most researchers believe children begin producing more advanced language. Prior to eighteen months children tend to say simple, isolated words but after the eighteen month mark, vocabulary soars and children begin combining words into two- and three-word utterances. Piaget believed that before children could acquire words they had to have reached the level where they were performing schemas that could be labeled with those words (Cattell, 2000).

Another reason Piaget had for assuming language development is dependent on cognitive development involves children learning the concept of time. He said that the understanding of temporal events occurred in the sensorimotor stage. Without knowledge of time children would not acquire the uses of "before", "after" and other spatial words (Cattell, 2000). To summarize

the cognitive factors necessary to language acquisition, based on what occurs during Piaget's sensorimotor stage of cognitive development, Bowerman made the following list:

> 1. Ability to represent objects and events not perceptually present.
>
> 2. Development of basic cognitive structures and operations related to space and time, classification of types of action, embedding of action patterns within each other, establishment of object permanence and constancy, relationships between objects and action, and construction of a model of one's own perceptual space.
>
> 3. Ability to derive linguistic-processing strategies from general cognitive structure and processes.
>
> 4. Ability to formulate concepts and strategies to serve as structural components for the linguistic rules (Owens, 1988, p. 48).

There are other aspects of the sociolinguistic theory that do not involve Piaget's cognitive development stages but are just as crucial. Owens (1988) says that this half of the sociolinguistic theory focuses on the social and communicative uses of language and that language is acquired through its continued use to achieve results based on wants and needs. When very young, the language of children focuses on solving problems and trying to influence their environments (Howard & Hulit, 2001). This theory shares that speakers choose to use language because of an inner desire to communicate. Through conversations with others they acquire the skills necessary to advance their communication such as grammar and pragmatics, the rules that govern the flow of conversation such as turn-taking and conversation speed (Owens, 1988). This part of the sociolinguistic theory is similar to that of Piaget's because children learn language through acting out familiar daily routines or schemas.

Behaviorism

A third popular theory for language acquisition is behaviorism. It involves much of the research of B. F. Skinner (1957). Skinner claimed that children learn language through imitation and his theory of operant conditioning. Operant conditioning involves a stimulus in the environment that provokes a response. The response, if it is the one desired, is rewarded. Being rewarded for a certain response makes it very likely that the same response will be repeated when paired with a similar stimulus. In this case, the stimulus is the speech of others and the response is the speech of a child beginning to use and practice their language skills. Reinforcements can be of many different types: smiling, laughing, repeating what the child said, feeding, handling, soothing, etc.(Owens, 1988). Like Chomsky and Piaget, Skinner agreed that children learn the language they speak through hearing it but he differed in how children store that language. Where the former said children fit language into pre-existing neural areas helping to perfect it, the latter argued that children simply copy the language of those around them and shape their speech until it becomes the most rewarded, usually ending with a correct speech production. Shaping in regards to speech involves making closer and closer approximations to the sound or word desired and each attempt is reinforced until it is correct (Howard & Hulit, 2001). Through shaping, all of the sounds of the language spoken by those around a child should be represented in his or her phonetic inventory. However, sounds not in that language will go extinct, meaning the child will not produce them (Owens, 1988).

Again differing from Piaget and Chomsky, Skinner denies that grammar is innate and that it is a necessary factor for learning language. He argues that children learn the associations between words first rather than grammatical rules and structure. For instance, when saying "I eat cookie," a child does not think of the grammar behind the phrase, they think of the word "I"

which is the stimulus for the word "eat" which in turn is the stimulus for the word "cookie". Eventually, the knowledge of word order in regards to stimulus helps keep consistent grammar usage in children and helps them apply that knowledge to the rest of their spoken language (Owens, 1988, p. 29).

Stages of Language Development in Children

As shown, language can develop in any number of ways, none of which have been proven completely. Whichever theory may be more correct does not change the fact that the stages of language development are agreed upon. Most researchers state that the steps of language development take place in the same order and around the same time. Embedded in language stages are developmental milestones that show at approximately what age a child should reach a certain language level. These cover both the acquisition of sounds and grammar structures. The main stages of language development cover from birth until early childhood and include pre-verbal landmarks, as well.

Pre-Verbal Stage

As any parent can explain, very shortly after babies are born they develop distinct cries. These cries differentiate because each one stands for its own need such as a wet diaper, hunger, or loneliness. The reason babies continue to cry is because when they cry they are rewarded by receiving a clean diaper, a bottle, or a cuddle. It has been shown with babies who receive no reply to their cries that their crying extinguishes even when they need something and they become quiet and morose (Howard & Hulit, 2001).

O'Grady (2005) broke down the levels of the pre-verbal stage children go through into what occurs during each month of the child's aging process: from birth to one month children cry, burp, and grunt. Roth & Worthington (2005) call this behavior reflexive because it happens

naturally and is not usually done on purpose or for any specific reason, crying aside. From two to three months children coo to signify pleasure. Cooing consists of vowels and vowel-like sounds (Roth & Worthington, 2005). From four to six months children squeal, yell, growl, trill with their lips, and begin to babble. They also begin laughing and playing with their mouths by using their tongue and making clicks and "raspberries". From seven to twelve months there is "full-fledged" babbling. Roth & Worthington (2005) add that after reduplicative babbling (repeating syllables) children move on to nonreduplicative, or variegated, babbling where they use multiple syllables ("badapa, etc."). From ten to twelve months children begin to use their first words (O'Grady, 2005, p. 143). Also during the ten to twelve month period, children use jargon which sounds like regular adult conversation in regards to intonation and inflection but there are usually no real words used. Protowords are common at this age level. These are invented words that are used consistently by children for certain objects or actions such as "na" for "give [object] to me" (Roth & Worthington, 2005, p. 139).

The pre-verbal stage extends through about the first year of life. Before children even begin to verbalize with coos, they respond to their names and noises around them by moving their heads toward the sounds. Children even recognize the voices of their mothers from hearing its intonations and rhythm in the womb (O'Grady, 2005). O'Grady even says that soon after birth children prefer the voices and language of their parents and can tell the difference between an English sentence and one in an unfamiliar language. Infants one to four months of age can distinguish between consonants and at six months vowel differentiation develops. By the age of two, most children can distinguish sounds as well as adults (O'Grady, 2005).

Once children realize that they can make noises themselves they begin to babble at around three to seven months. Many researchers say babbling continues because it gives children

pleasure from the feelings in their throat and mouth (Howard & Hulit, 2001). Babbling involves the repetition of single vowels and consonants ("bababa") and starts out the same in children who are born into families who speak every different language. Babbling becomes more complicated and frequent over time, involving harder syllables. Even deaf children babble, although the onset of it is slightly delayed because the way children begin to babble and then turn babbling into speech is through hearing themselves. Babbling lasts for roughly eight months and tends to overlap with a child's first words (Howard & Hulit, 2001). Within motor development Locke (1993) places babbling after smiling and rolling but before crawling, sitting without support, and pulling.

During the pre-verbal stage the development of gestures is very important to a child's growing set of communication skills. Following what Bates calls the prelocutionary stage, where the behavior of children is not associated with anything in particular, comes the illocutionary stage, where children use gestures and vocalizations to share their desires in hopes of a response (Owens, 1988). This helps children communicate before they are able to speak; but, since their gestures do not allow others to understand them perfectly, the vocalizations they have begun to use become more important and frequent. This greater need for verbalizations causes more practice and therefore better accuracy with regards to vocabulary development. The main gestures used by children under one year of age include contact gestures, the act of taking an adult's hand and making it do what the child wants, distal gestures such as finger pointing and waving, and pantomimic gestures such as opening bottles or turning off lights (McLean, 1999, p. 138).

Single Word Sentence Stage

A child's first word typically appears between eight and twelve months of age. A word does not have to be real to count as a child's first, it only needs to approximate to an adult word and be used consistently with the same meaning or meanings. A child's first fifty words tend to mostly include these types of words in decreasing order: specific nouns (nouns that refer to specific parts of a general category and are usually preceded by "the" as in "the cats"), general nouns (nouns that refer to a general class of something as in "cats have nine lives"), action words (verbs), modifiers (adjectives), personal-social ("no" and "yes", etc.), and function words (question words) (McLean, 1999).

Many children use the same word to refer to multiple objects or actions though with age their definitions will narrow (Owens, 1988). However, sometimes children use the same word for multiple objects when they should not. Overextension is the term for when a child takes a word that they know is correct, say "cat", and they use "cat" to refer to any animal with four legs and fur, be it a horse, dog, sheep, etc. The reason they do this is because they may be very familiar with their pet cat and therefore overextend the word's meaning to cover all animals that have similar general characteristics to cats. Underextension is where a child has a narrower view of word meanings. For example, a child may know that where they live (a one-story ranch) is called their house but, if the child visits a friend whose house is two-stories and varies in other ways, the child may not consider that a house because it does not fit in their previous definition (O'Grady, 2005).

When expanding vocabularies, children generally follow one of three patterns. The first words of expressive children, for instance "byebye" or "hi", tend to reflect social situations, relations, or activities. Referential children begin their vocabularies with nouns such as object

names. A third common category for beginner speakers to fall into is that of symbolism where vocabulary does not focus on solid objects but rather contains words like "yesterday", "out", and "now" (Howard & Hulit, 2001). This word usage is the third of Bate's stages of language development: the locutionary stage where words convey a child's intentions (Owens, 1988).

A child's first word is usually an approximation of "mother" or "father" or the name of some other object that is common in his or her daily life. There are two main styles of word use in children: analytic and Gestalt. Mostly, analytic stylists break up heard sentences into its smallest parts from the beginning. These children tend to have short and clearly articulated one word utterances like "up", "give", and "want". They tend to use simple words that often refer to people and objects. Children who mostly use the Gestalt style of word finding memorize and produce exactly what they hear from an adult's mouth which tends to be large chunks of poorly articulated speech. Thus, what children say follows similarly to these examples: "Whasdat?" for "What's that?", "dunno" for "I don't know", and "gimmedat" for "Give me that" (O'Grady, 2005, p. 11). Referential children follow mostly the analytic style of word use whereas expressive children tend to be more Gestalt, however, no child uses one style over the other all the time.

It is also been shown that the first utterances used by children tend to follow a similar stress pattern. Most children when first using words will choose ones that follow a strong-weak pattern where the stress is on the first syllable: daddy, doggie, candy, etc. O'Grady called this the spotlight strategy (2005).

Children pick up words from their environments. This obviously helps to increase vocabulary but sometimes what children hear aids in their making up words that do not exist. Children expanding their knowledge of words use a "matching strategy" to help them figure out

new words. If a child has the word "doggie" in their repertoire and they hear the phrase "big doggie" they realize that "big" must be a separate word from "doggie", hence the word "big" acquires a meaning for them and they can begin to use it. This strategy does not always work because, if a child knows the word "be" and they hear "behave", they may think that "have" is a word on its own (O'Grady, 2005).

Another common way in which the vocabularies of children grow is through elimination. If a parent or caregiver asks a child to give them a circle and not a triangle and the child already knew "circle" then by the process of elimination the child realizes the other shape must be the triangle (O'Grady, 2005).

Short Sentence Stage

This stage is also referred to as the telegraphic stage because sentences are often choppy and only communicate the important words of an idea. The first short sentences usually appear around 18 months when a child has a vocabulary between one and two dozen words. This stage lasts until approximately two years of age. Children often start out with two word sentences and begin to add one word at a time. Telegraphic speech occurs even before children have mastered most sounds of their language (Howard & Hulit, 2001). Dore (1974) noted that children in this stage perform primitive speech acts that resemble adult speech. Children begin to use one or two word utterances to label, repeat, answer, request either an action or an answer, call, greet, protest, or practice (Owens, 1988). Often the two word utterances involve a pivot word which leads into the second word of the sentence such as "see cat" or "allgone juice" (O'Grady, 2005). The main goal of speech in children this age is to control their environment and in doing so they try to get points across as succinctly as possible in order to receive gratification. Grammar is not yet a factor in language use.

Typically all children speak more during this stage of language development, however, children who are more active or who have siblings use less speech. These children are either too busy or they rely on others to use language for them so they do not need to speak. For instance, it is common for older siblings to tell parents what their younger siblings want leaving the younger child no room for speech because there is no need for him or her to use it.

Children do not use telegraphic speech because they have poor memories. Memory at this age is actually quite functional. During this period of development children actually learn one to two new words every day. By the age of two, most children have a vocabulary of over 50 words consisting mostly of nouns (Owens, 1988). Children are very talented in understanding the meaning of a word the first time they hear it. For instance, if a child's parent sees a dog and says "dog" the child knows that means the animal as a whole and not just one of its parts. This is called whole object assumption (O'Grady, 2005).

Children are very efficient in the way they acquire language but they are far from perfect. Articulation is the hardest part of language for children to grasp as they grow (O'Grady, 2005). There are many times through development that children will make language or articulation errors. Despite these errors, children actually know more than it would seem. For example, if a child says "fis" instead of "fish" and an adult repeats the child's utterance of "fis," the child will know that is incorrect and insist that their (the child's) production was correct, yet if asked to say "fish" again, they may still say "fis" with the same confidence (O'Grady, 2005). Eventually most children will correct their mistakes, maybe without even knowing that their productions are becoming better. Language develops through children using what works best to convey their meanings so they continue to modify their utterances to be better understood. By the age of

seven most children communicate their ideas and desires as well as adults (Howard & Hulit, 2001).

Language Milestones

There are several ways to measure the growth of a child's language use. First, tt is important to know when the basics of speech (consonants and vowels) emerge in children. According to O'Grady, the first five vowels to show up in a child's repertoire are /i/ ("ee"), /a/ ("ah"), /u/ ("oo"), /o/ ("oh"), and /ʌ/ ("uh") (2005). These show up before consonants, as they make up cooing almost as soon as a child is born. Consonant acquisition comes much later and involves spurts of learning groups of consonants at a time. At the age of three children should be using the consonant sounds /m, n, h, p, and w/ and by four /f, b, k, g, j and d/ are added. By five, they should use /ŋ, t, and t͡ʃ/, by six there comes /l, s, r, v, ʒ, θ, d͡ʒ, and ʃ/, and by seven the last consonants of /z and ð/ should be acquired (Roth & Worthington 2005). This shows that children first learn sounds that they can see being produced and are made at the front of the mouth like /m and p/. Sounds that cannot be seen and occur in the back of the mouth are acquired later. These ages are not definite but are approximations. The learning of these sounds varies from child to child with girls evolving faster than boys.

Table 1
Ages of Consonant Acquisition

Consonant	Age of Acquisition	Consonant	Age of Acquisition
/m/	3:0[1]	/t/	5:0
/n/	3:0	/t͡ʃ/ ("ch")	5:0
/h/	3:0	/l/	6:0
/p/	3:0	/s/	6:0
/w/	3:0	/r/	6:0
/f/	4:0	/v/	6:0
/b/	4:0	/ʒ/ ("measure")	6:0
/k/	4:0	/θ/ ("th")	6:0
/g/	4:0	/d͡ʒ/ ("j")	6:0
/d/	4:0	/ʃ/ ("sh")	6:0
/j/ ("y")	4:0	/z/	7:0
/ŋ/ ("ing")	5:0	/ð/ ("feather")	7:0

1. The first number refers to years. The number after the colon represents months.

Roth, F.P, & Worthington, C.K. (2005, p. 89)

Second, after knowing when children develop each sound, it is important to understand the mean length of utterance. The mean length of utterance, or MLU, measures increases in

sentence length. The MLU is the average number of morphemes in a sentence; a morpheme being the smallest part of a word that can have meaning. Typically a child's MLU increases by 1.25 morphemes a year, though the MLU of girls increases more rapidly than boys (O'Grady, 2005). Brown (1973) listed 14 morphemes in the order in which they are acquired: progressive –ing (working), on, in, plural –s (books), irregular past (went, ran), possessive –'s (Jon's), non-contracted main verbs (He is.), the and a, regular past (talked), third person –s (He has.), irregular third person –s (He runs.), non-contracted auxiliary verb (He was eating.), contracted main verb (He's hungry.), and contracted auxiliary verb (He's visiting) (Owens 1988). This is an MLU growth chart adapted from Owens (1988, p. 255):

Table 2
Average Mean Length of Utterances by Age

Stage	MLU (# of morphemes)	Approximate age
I	1.0-2.0	1-2:2
II	2.0-2.5	2:3-2:6
III	2.5-3.0	2:7-2:10
IV	3.0-3.75	2:11-3.5
V	3.75-4.5	3:6-3:10
V+	4.5+	3:11+

The MLU is tested using children's speech. This leads to a third way of testing language development: vocabulary growth. As stated previously, vocabulary soars soon after a child begins speaking and they often know more than they say. The following is a chart adapted from Roth & Worthington (2005, p. 143) that shows the typical vocabulary size according to age:

Table 3
Vocabulary Size by Age

Age	Number of Words
15 months	4-6
18 months	20-50
24 months	200-300
3 years	900-1,000
4 years	1,500-1,600
5 years	2,100-2,200

Biological and Environmental Effects on Language Acquisition

There are aspects of a child's environment that can have large impacts on language development. These factors come from many different areas including the makeup and morale of a home, biology, attachment, and parental interactions among many others. Almost all of these aspects that can affect a child's language are interwoven; one factor affects another and vice versa, causing an ever-worsening cycle. This cyclical effect occurs because the environment affects parents who in turn affect their environment and that of their children. After acknowledging and/or learning about these problematic areas, parents can learn what they can do to prevent set-backs and help their children on the road to better communication.

One aspect of a child's environment that is often overlooked despite its great impact on language is the density of a home. The amount of crowding in a home is measured by the amount of people per room. Evans, Hart, and Maxwell (1999) concluded that there may be a negative impact on language acquisition above 0.71 people per room. Language development may be affected at this level because the density of people in a home is negatively correlated with the

amount of parental responsiveness towards children, the quality of parental language use decreases, and parents also use less complex speech (Evans, et al., 1999).

A negative correlation between home density and parental responsiveness means that, as density increases, the amount of parental responsiveness decreases to all ages of children, including infants. Evans, et al. (1999) defined parental responsiveness as "the proportion of all single parental verbal utterances to the child...not preceded by parental verbal initiation" (p. 1020). This same study also found that the lack of responsiveness is not only verbal but includes nonverbal communication, as well. How much a parent responds to his or her child shows their receptivity to the child's needs. If a parent does not communicate much with a child, he or she most likely does not have a full knowledge of the child's interests. This may be due to the fact that there is more chaos in crowded homes so parents must divide their attention more than in less crowded homes. Parents in these situations also have less time and energy for each child.

Coupled with parents' unresponsiveness to their children's behavior is their lack of complexity in what little speech they do use. This simplistic speech does not allow children the models they need to expand their language skills. The quality of parental language use is measured by the term 'language diversity'. Language diversity is the total of different speech aspects used (nouns, adjectives, and adverbs) per hour when talking with children (Evans, et al., 1999). If a parent speaks with much diversity, this means they share fuller, richer experiences with their children that they can use in their own language. These three parental speech patterns caused by crowded homes have been shown to cause poor cognitive development in infants that reaches through elementary school (Evans, et al., 1999). Delayed cognitive development affects language acquisition.

The amount of communication parents engage in with their children is also affected by the language level of the child. Parents of children with language delays typically talk less with them and use fewer expansions and self-directed speech. In their study, Hodges, Klee, and Vigil (2005) noted that parents of children with a language delay used 164.13 utterances in a session compared with the 195.26 utterances of mothers with typically developing children. An expansion is when a parent repeats a child's utterance and adds words to it and self-directed speech is when a parent narrates and explains out loud what he or she is doing. To some degree, it is necessary to adjust speech to a child who has certain delays but most language problems will be more hindered through a lack of parental communication.

Hodges, et al. (2005) found that the reason many parents interact less verbally with children who have language delays is because of the 'idiosyncratic feedback cycle'. This means that, if children do not communicate much with their parents, then the parents will not interact much with the children, causing the children to continue their non-communicative ways. Essentially the interaction becomes "a continual cycle of inadequate feedback loops (that occur) between child and caregiver" (Hodges, et al., 2005 p. 108).

There are many differences between the communication styles of parents with language-delayed children and those whose children do not exhibit delays. One of the major differences is in maternal responsivity which includes imitation, expansion, and interpretation. Unresponsive mothers do not comment on what their children are doing, do not clear up confusion, do not repeat what their children say, and often are abrupt in their speech (Hodges, et al., 2005). Without good maternal responsiveness, children cannot readily understand what is being said. Also, without feedback, children are unsure whether or not what they are saying is correct. This may lead to children learning incorrect habits as correct ones.

Another difference between mothers is that those of children with language impairments tend to initiate more yet use simplistic speech whereas mothers of children with typical language would take turns with their children, allowing children to begin communication with speech or gestures (Hodges, et al., 2005). The latter mothers also use more complex speech with their children. The speech that mothers of language-delayed children use is most often for requests, assertions, and directions, whereas the speech of mothers with children who exhibit no delays contain more responses, acknowledgements, and requests for clarification from the child (Hodges, et al., 2005). The differences in these patterns of speech is important because children who only hear directions and do not get their verbalizations repeated back to them with corrections will have a harder time grasping their language. Expansions and extensions help add to a child's verbal repertoire.

Similar to the distinction between the previously mentioned speech patterns is the conversational styles of mothers with differing child-language levels. Mothers of later talkers tend to control conversations by only commanding their children and requesting that they say certain things. They are constraining their children in conversation to try to lead the child a certain way by directing conversational demands towards them and the mothers also initiate more often than they respond. Mothers of typically developing children are more interactive with their children and follow the child's lead in conversation. They tend to use better pragmatic skills and take turns while communicating while initiating in proportion to responding (Hodges, et al., 2005).

As part of this 'inadequate feedback loop', mothers of children with delayed language will often switch topics quickly without the child giving indications of that desire (Hodges, et al., 2005). Mothers may do this because they see their child taking a long time to respond as he or

she not wanting to talk about a certain subject. In reality, a child with a language delay needs more time to respond, therefore, when a topic is suddenly switched it will take him or her even longer to speak. This causes the mother to choose another new topic, furthering the problem and making the child even more anxious about responding quickly.

Father involvement is also important to a child's language development; though Cabrera, Lamb, Shannon, and Tamis-LeMonda (2004) found it is not as significant as that of mothers when tested (they saw that paternal impact ranged from a .18% to .22% increase on the Peabody Picture Vocabulary Test whereas maternal impact ranged from .20% to .27%). Cabrera, et al. (2004) studied the types of interactions fathers had with their children. They found that fathers who have had more education and make more money had more positive interactions with their children. More education leads to better job opportunities where a father can support his family with a healthier food selection, more money for educational tools, and many other aspects of daily life that can benefit children. Fathers who demonstrate financial stability show more sensitivity and are less demanding when dealing with their children. They also tend to be more cognitively stimulating. Being able to provide better for a family also carries over to relationships with partners who in turn also have more positive interactions with children. This also works the opposite way, however, when a father is unable to provide and treats children negatively, his spouse is likely to do the same.

The study by Cabrera, et al. (2004) also found that the actions of fathers towards their children differ because of a child's health, temperament, and gender. Fathers seem to talk less with sick or fussy children because of the effort and possibly a lack of opportunity. They also talk less with boys because emphasis is more on "rough-and-tumble" play than language. Fathers are also less sensitive and attached to their sons, increasing negative regard while decreasing

positive interactions. With daughters, parents encourage communication skills and interpersonal interactions. This is why fathers tend to talk to their daughters more (Children and Primary Language Acquisition, 2006). The order birth also determines how often a child is talked to. Parents tend to speak more with their firstborn children. This is for two reasons: one, the parents devote more attention to a child when he or she does not have siblings and two, siblings affect the speech of other children. If children have younger brothers or sisters, they may often talk for the younger children because they can better anticipate what the child needs. This means that smaller siblings do not talk to their parents much because it is not necessary in order to get what they want. This is also the case with twins who develop their own language with each other. They tend to elect one of them to be the twin who talks with the parents (Children and Primary Language Acquisition, 2006).

When fathers enjoy their families they are more nurturing during play and there is less conflict in the home. This high morale is a good environment for learning language. Cabrera, et al. (2004) stated that "positive engagements between fathers and children led to a fourfold decrease in the likelihood that...children would have developmental delays..." (p. 1807). The positive outcomes of these engagements are even greater when a child is living with his or her biological father and the parents are married.

These paternal factors allotted for approximately 41 to 50 percent of the variety in language test scores. Even after maternal factors were removed from the equation, the involvement of fathers still played a significant role in the language development of their children. Cabrera, et al. discovered that the benefits or problems caused by the way fathers interacted with their children carried with the children's language development all through elementary school.

Infants are often attached to both parents so this attachment is also an important factor in helping or hindering the development process of language. Attachment is the degree of comfort a child takes in his or her parents and the feelings of love towards them. A securely attached child is one who can handle situations without constantly having a parent around. These children are often more confident while an insecurely attached child tends to be moody and needy. An insecure attachment is formed by a child who is clingy and cannot handle changing situations without a parent present. Hofmeister and Klann-Delius (1997) found that the degree of attachment and the timing of interpersonal relationships between parents and their children can have both negative and positive influences on language, especially in stressful situations. One finding was that securely attached children used a greater amount of vowels than insecurely attached children of the same age. Another discovery was made concerning the number of spontaneous utterances by children. Children who are securely attached will initiate conversations more often than those who are insecurely attached, even after their parents leave the room. The utterances made after the parents of insecurely attached children left also tended to be more negative and disruptive. When parents were the ones initiating conversation, securely attached children will able to respond well to prompts and changes of topic. Insecurely attached children took longer pauses before responding, which indicates it took them longer to formulate a sentence (Hofmeister & Klann-Delius 1997).

Not only do parents have significant effects on the language development of their children but also on their use of that language. According to Johnson's diagnosogenic theory, the way parents attend to normal fluency disruptions in children's speech affects whether those natural disfluencies are outgrown or become clinical stuttering (Ratner, 2004). The diagnosogenic theory is not as popular today as it once was, yet there is still evidence supporting

the idea that the attempts of children to copy the often fast-paced and poorly-articulated speech of their parents leads to disfluencies. Ratner (2004) found that a lot of children who stutter come from households with an extremely high level of talking. When trying to keep up, it is likely that these children will stumble over their words, especially when the high amount of verbalizations includes a fast speaking rate, using utterances that are too complex for the children, or responding to children faster than they can comprehend. This study by Ratner (2004) also discovered that a polysyllabic vocabulary, using two languages in the home, using complex syntax or inappropriate speech, constant interruptions, or many people talking over one another can lead to stuttering.

As was mentioned previously, communication is a constant cycle of feedback from parent to child and back again. Stuttering fits very well into this cycle because when a child is disfluent his or her parents tend to increase their rate of speech because the stuttering may make them uncomfortable. Of course, this increased speed of talking puts further stress on the child, which increases stuttering (Ratner, 2004).

As mentioned, many of the effects on a child's language development tend to be intertwining. One of the most researched factors affecting language acquisition is socioeconomic status. According to an article from the University of Michigan, children who grow up in a middle class family progress faster in their language acquisition than those from lower classes (Children and Primary Language Acquisition, 2006). This was shown through several reasons. Parents in lower class families tend to have smaller vocabularies, thus their children know approximately one million less words by the age of five than their middle class counterparts. Middle class parents also read to their children about 1,000 more hours than those of lower classes.

During a study conducted by Chapman, Hancock, Kaiser, and Stanton-Chapman (2004) a list was compiled of language risk factors associated with a lower socioeconomic status. This list included prematurity, low birth weight, perinatal complications, adverse neighborhoods, malnutrition, and parental psychopathology to name a few. 94% of the 853 children who participated in the language scale had at least one of those risk factors. For every risk factor a child had, their resulting language score went down. For girls, every factor in their lives meant a loss of 2.3 points on average and for boys, a loss of 1.1 points. Of all the children in this group, 19.2% of all the girls had a language delay as did 33.3% of the boys (Chapman et al., 2004).

An interesting find from this study was the amount of children who showed an SLI (specific language impairment). An SLI is a language impairment that a child with normal intelligence has that is not accompanied by any hearing loss, since hearing loss can lead to language learning issues. These language impairments are thought to stem from emotional hardships faced when living in a lower socioeconomic family, especially because parents in these families typically talk less to their children. This depresses children and also leaves them lacking verbal models which they can imitate (Chapman et al., 2004). This high occurrence of SLI is also a strong risk factor for future generations in the family because Chapman et al. showed that there is a 40-70% chance of passing speech disorders onto children (2004). Overall, based on the research done through the low-income children here it has been generalized that of all the speech and language problems in the United States, 12-17% of the variance from normal speech is caused by poverty (Chapman et al., 2004).

One of the risk factors mentioned in the previous study, premature birth, was the focus of another study by Harrison and Magill-Evans (2001). After administering an expressive language test to children who were born prematurely, this study found that 28% of the children had a

language delay. This research correlates with research done by Drorbaugh, Fiedler, Lenneberg, and Rolfe (1971). This group compared several mothers with children who were born prematurely with a group of mothers whose children were full term. When these two groups were compared, 38% of the children who were born preterm had language delays compared to just 14% of the children who were born after a full nine months (Drorbaugh et. al., 1971). This finding was again confirmed by the research of Kvaran, Gretarsson, Gunnarsdottir, and Thorsdottir (2005). This study researched upon the same topic and found a positive correlation between a child's birth weight (as weight would typically be less in premature children) and his or her scores on tests of language development.

Drorbaugh et al.'s testing went beyond that of premature birth. These researchers included studying the effect of children's psychological and behavior problems on language, that of the overall health of the children, and their home environments. In regards to the psychology and behavioral state of children, this research found that 32% of children who were found to have language delays also exhibited abnormal behavior such as breathholding, absent gazing, and random body movements. At the ages of four and seven these children were also very likely to exhibit psychosocial problems such as anxiety and depression (Drorbaugh et. al., 1971). 19% of children who needed repeated hospitalizations for illnesses showed language delays compared to 4.5% of children who were relatively healthy (Drorbaugh et. al., 1971).

One of the most evident factors leading to a delay of language development proven by Drorbaugh et al. was the impact of a negative home environment. According to their study, 45 % of children who lived in a home deemed unfit had language delays compared with only 18% of children from good home environments. The problems with language these environments were shown to case included delayed sentence structure, small vocabularies, and unintelligible speech

(1971). This is one aspect of external forces on a child which has been thoroughly researched, as well. Kersley, Law, and Roy (2005) gave 1,303 two year olds a language measure and found that a negative home environment had a great impact on results, namely due to a lack of primary care-giver education. The difference in language development only occurred if the care-giver had not received more than the national minimal education level.

Other factors of a child's home environment researched include the weight of the mother, maternal depression, breastfeeding, and parental age. These topics were discussed by Kvaran et al. (2005). First, after giving a developmental inventory to children, it was found that women who were overweight before and during pregnancy had children with lower language scores than those children of thin mothers. The average drop in scores was five points between means from 112 to 107. Second, related to the weight of the mother is maternal depression. Kvaran et al. (2005) had said that maternal low self-esteem can cause them to have less interaction with their children and this may be why the children have lower language scores. Third, mothers who are overweight also tend to stop breastfeeding earlier than regular-sized mothers and it was shown through this research that out off all the children who were breastfed for the correct amount of time only two of them showed language delays. Lastly, this study showed that parental age showed a positive correlation with language scores.

Aside from these hindrances to language development there are more factors which have only recently been coming under heavy research. Anthony, Bandstra, Morrow, Vogel, and Xue (2004) have undertaken the study of the effect maternal drug use has on child language development. They have found that there is an average drop of three points in the test scores of children whose mother drank, smoked cigarettes and/or marijuana, and did crack cocaine while pregnant. Harrion and Magill-Evans (2001) have also studied an aspect previously ignored that

affects language development: parental stress. They determined that high stress levels in mothers and fathers account for approximately 15-19% of the variance in language scores.

There are so many aspects of a child's life that can affect his or her language acquisition yet many are connected. Changing one part of a home environment can affect many other areas to either benefit a child or hinder their language learning. All of these areas mentioned can have their own affect on language but most have a greater impact together. Along with good health and nutrition, evaluating and improving upon these environmental aspects surrounding a child can be a great help.

Implications for Parents

Parents are a huge part of the language acquisition process. A popular example of the role of caregivers in language uses the story of a girl who shall be called Genie. She was found at the age of thirteen and a half after suffering extreme physical, emotional, and social deprivation. She had almost no language ability because her parents had not interacted with her as an infant (Cattell, 2005, p. 183).

Not everything that affects the speech and language of children can be controlled, such as hearing loss and poor health. Despite the seeming impossibility of overcoming certain roadblocks to language, there are many ways to cope with hindrances that can help, if not make language perfect. There are also many areas that *can* be accounted for and improved upon in a child's environment. Even slight changes in parental behavior or lifestyle can have an amazing impact on language development. There are many tips and tricks to help parents learn the best ways to communicate with their children. A lot are common sense but there are others that, once learned, turn out to be easy and helpful. There is even a type of speech that professionals

recommend parents use with children. Commonly called "motherese", "parentese" will be the term used here to include fathers and all caregivers.

Parentese is universal since almost all languages of the world use it in some form or another. It has over 100 specific characteristics that separate it from normal adult speech but generally involves familiar words, short sentences, slow, careful articulation and exaggerated variations in pitch and intonation (Howard & Hulit, 2001). These characteristics have also been called child-directed speech, infant-directed speech, caretaker speech, nursery talk, nursery language, and caregiver register because of the focus on helping children understand language better. Cattell (2000) made the observation that this clarifying and simplifying speech is similar to that used when talking to those who are hard-of-hearing, foreigners, mentally retarded, and somewhat surprisingly, lovers. Parentese is *not* baby-talk. Baby-talk often involves made up consonant vowel combinations similar to a child's babbling. This type of speech is more harmful than helpful to children because that does not provide a good model for them to follow.

O'Grady (2005, p. 176) broke parentese up into three categories. Under pronunciation he stated that a caregiver should use slower speech with longer pauses after important words and between utterances. He also said parentese includes a higher pitch with greater range, and exaggerated intonation and stress. Under vocabulary and meaning he insisted upon a smaller vocabulary with three times the amount of repetition of utterances and that conversations should include more about the present. Under the third category, sentences, O'Grady lists that there should be fewer sentence fragments and run-on sentences, shorter and simpler utterances (one or two words fifty percent of the time), intelligible sentences, and more commands and questions. Repetition allows children a second chance to understand what has been said to them and the exaggerated pitch and tone is more attractive to children. It also emphasizes for them what is

most important in the speech stream. This type of speech is beneficial to young children even from birth.

Bahrick, Gogate, and Watson (2000) expanded the definition of parentese to include object motion and touch, which are even more beneficial to a child's language acquisition. This more involved conversation strategy is called "multimodal parentese." This expanded theory is based on the fact that communication is multisensory: Facial expressions, gestures, touching, and hearing all contribute to the understanding of speech, so usage of more than one sense helps children learn language easier and better. What is most important, however, is that parents and caregivers coordinate these other actions along with their speech.

In their study, Bahrick, et al. (2000) found that infants show a preference for vowels that are presented bimodally such as varying mouth shapes for each sound or widening of the mouth during an increase of intensity. The children involved were also more likely to imitate sounds and mouth movements if visual and auditory components were presented simultaneously. Speaking while using tactile and facial cues also helps children to connect the use of facial expressions and gestures with speech.

Another aspect of the study by Bahrick, et al. (2000) involved redundancy. When talking to a child, it is helpful to repeat utterances. Not only does this give children a second chance to understand what is being said to them, but it also provides extra models for them to absorb and use on their own. Under the age of two, parents should name objects that are in sight of their children multiple times. This naming allows infants to better attend to words with which they are familiar and it helps them learn actions and objects within their immediate context, giving them a better handle on their world. Naming objects that are surrounding a child is more beneficial when the naming is accompanied by gestures such as "pointing or showing the object to the infant or

touching the infant" (p. 879). Using gestures with an object gets the attention of children and when children are attending they are able to learn words much more efficiently, especially nouns. It is also effective to name and focus on an object a child is manipulating.

Eye movement is another important part of multimodal parentese. Children rely on the looks of their parents to know whether or not the label that has been given to an object, by the child or the parent, is correct. They can tell this by the amount of surprise they detect in their parents' eyes.

Eye contact is also very important for secure attachment. Attachment is built on touch and eye contact soon after birth. It also heavily relies on parents or caregivers fulfilling the needs of their children in an efficient manner. Obviously the way children express their wants and desires as infants is through crying. The speed and effectiveness of parental responses is what builds trust and this trust is what allows children to become securely and positively attached to their parents. This does not mean that children always need immediate gratification. In fact, a small lag in response is the best way to build trust. As mentioned previously, a secure attachment is important to children acquiring language.

Secure attachment felt by parents affects how they interact with their children. Parents will use more responses, expansions, and self-directed speech (Hodges, Klee, & Vigil 2005). Expansions occur when parents add on to children's utterances. For example, if a child says "horse run", a parent could expand by responding "yes, the horse is running." Expansion not only adds to a child's vocabulary but it also shows them how to get a greater use of what language they have and it helps parents to better interpret what their children are saying. It gives children a chance to correct their parents. Self-directed speech, or parallel talk, is when parents describe what they or a child is doing while the actions are taking place. A parent may describe

what they are doing as they are making a sandwich for example. This provides a great model for children and helps them to learn how to describe actions relevant to their lives. Responsive parents also imitate the utterances of their children to ensure them that they are interested in what the children are doing. Being actively engaged in a reciprocal conversation makes children feel more confident in their abilities, expands their language knowledge, and builds better relationships between children and parents.

If parents lack these interaction skills there are programs set up to help. Hodges, et al. (2005) mention the intervention group titled the Hanen Parent Training Programme. This program:

> Teaches concepts such as expansion, self-talk, turn-taking, and following a child's lead. Parents are taught to limit initiations and wait until the child either produces an utterance or uses some nonverbal communication such as a gesture or eye contact in order to respond (p. 120-121)

There are many such intervention programs in existence and the shortest time spent in one can greatly impact a child's language learning through the newly acquired teaching skills of their parents. It is not an insult to parents to suggest receiving some training in how to best speak with their infant. Many helpful hints are subtle and can be easily picked up and used, it is only a matter of finding out what works for each child.

Most parental interaction that has a large positive impact on growing speech occurs naturally. Most of the language that children learn as infants comes from simply playing with their parents (Cabrera, et al. 2004). Parents encourage exploration in their children which exposes them to more objects and language. There are several characteristics mothers and fathers can exhibit that Cabrera, et al. (2004) say are better for bringing about language. These include

sensitivity, a positive regard, and cognitive stimulation. Intrusiveness, detachment, harsh punishments, and a negative regard have the opposite affect on language acquisition.

Sensitivity is when a parent takes the child's perspective while interacting and understands and responds promptly and appropriately to signals from the child. Showing love, respect, and admiration for the child is how a parent demonstrates a positive regard and cognitive stimulation involves a parent actively teaching a child and helping to expand their abilities. On the other hand, intrusiveness comes from over controlling and over involved parents. Detachment occurs when parents are not aware of their children and ignore their actions. Parents who seem unhappy with their children and treat them with anger and rejection often have a negative regard for them. These characteristics all combine into one of two types of parenting: supportive and overbearing parenting. According to Cabrera, et al. (2004) supportive parenting was the only parental measure that predicted the language ability of children consistently.

Having a routine, providing age-appropriate learning materials, and picking good child-care facilities are also aspects of a child's life that parents can control to benefit language learning. Other suggestions given to parents by Cabrera, et al. (2004) include talking slowly and in short phrases to children, responding to their cries and smiles, being sensitive, and adjusting behaviors to a child's age. Most importantly, these researchers want to make it clear that fathers and mothers both play an equally important role in a child's language acquisition.

Speech rate and the complexity of parental language use play a significant role in language development (Ratner, 2004). This quote from Van Riper is what Ratner (2004, p. 47) based a study on:

> "Consider for a moment what choices are open to a child whose parents set for him speech models which are too fast and too complex. He can either imitate the fast flow and

> talk jabberingly else he can speak...correctly and falter hesitantly. If he takes one path, he may stutter; if he takes the other, he may have a disorder of articulation. If only parents would blaze the third trail of easy simplified speech..."

Ratner (2004) discovered that the rate of parental speech tended to predict stuttering in a child. The more language a child heard every day, the more likely they were to develop this speech problem. Slowing down of parental speech rate was shown to decrease the instances of stuttering along with simplifying conversations and softening the speech used. Turn-taking is also crucial to help slow speech rate and allow children an opportunity to comprehend what is being said to them and formulate an answer. Parents can learn to adjust their rates of speech through counseling and intervention as mentioned earlier.

Aside from seemingly complicated studies and overwhelming advice from professionals, there are also short and simpler tips that parents and caregivers can quickly grasp. Most of these form from common sense and are easily adapted into speech. Adjusting even one aspect of conversational speech can greatly impact a child's language development so these last tips may be easier ones to take to heart and apply to daily life. The University of Michigan (2006) suggested that the most important factor in language acquisition is the amount parents talk and interact with their children. However, they do add that there are several ways to improve upon average communication when speaking with them that can even further improve the benefits. Using an appropriate vocabulary was the foundation they suggested, along with using less directives and more questions. These latter two allow children to use more of their own language since questions usually need a verbal response.

Another important aspect of language acquisition that the University of Michigan (2006) focused on was the impact of reading on children. Middle class parents read an average of 1,000

more hours to their children. This is one reason why middle class children tend to speak earlier and better than children from lower socioeconomic families. Also, the younger a child was when his or her parents began reading to them, the better their early language skills will be. Books can also introduce children to objects and concepts they may not experience in their daily lives. Reading is something almost anyone can do for their children. Having children match pictures to the words in a story or pointing to them oneself is a great way parents can add to the benefits of reading. Asking questions of the child helps them learn the purpose of books and how they work. It also helps children and parents achieve joint attention for building bonds and interest.

This was what the university was mainly trying to get across. Parents do not need expensive toys and learning aides. Spending time with children and playing with them while providing good speech models is the best way to teach children language. First, they say to talk to babies. Parents should not use babbling or nonsense words with their children; instead parents should use parentese as discussed earlier. Not only do infants learn the purpose of language and how to use it through modeling and imitation but they also learn language forming rules. Second, parents should try to avoid using drilling practice with their children to teach them speech concepts. Drilling young children at home will not hold their attention. This kind of practice is not always necessary and if needed, speech therapists can take over that aspect of language teaching. Parents can help their children by simply commenting on what the child is interested in at the time and switching topics when he or she does. Third, parents should not rely on television to teach their children because they learn better through live voices than recorded ones.

Conversation with infants has been described as a dance where parents and children take turns leading (Howard & Hulit, 2001). Parents say what children are doing and children respond. Children with slower developing language tend to have mothers who do not do a lot of

describing. These mothers also have improper timing with their communication and cut children off before they have a chance to talk. It is important to allow children appropriate time to formulate answers and enough communication stimuli that requires responses. Parents need to encourage language use, especially correct usage, by their children and focus on the subject of conversation more so than grammar, which children will learn through experience. It is also important that parents not become frustrated because it may take several hundred exposures to get some words or language rules correct. The words used most frequently by parents will probably be those learned best by children.

Extra tips offered by O'Grady (2005) include using words with one stressed syllable instead of two, using shorter sentences (more than one word but less than five), and making sure parents understand their children through repetition and showing of interest. Parents are the key factor in children learning approximately their first dozen words. Owens (1988) adds to those hints by encouraging parents to use symbolic play and deferred imitation. The former involves "pretend play" such as tea parties and the latter is where a parent asks the child to repeat something but places words between the example and the prompt to say it (i.e. "This is a dog. What is this?"). Parent interaction is the originating factor for language learning, especially because parents are the main people around to give the behavior and language use of children meaning.

Before children enter preschool is the most critical periods for language development. No matter which theory of language acquisition best fits a parent's or caregiver's idea, it will involve an environmental component. Even Chomsky's theory of an innate language acquisition device includes the need for the environment to "kick it into gear" (Cattell, 2000). It is important that people who will have close interactions with young children understand how great an impact

their actions have on growing speech and language. There are many tips and strategies given by professionals to help teach caregivers the best ways in which to provide good language models for the children under their supervision. Many of these plans are easy to adopt into daily life and can make a large difference in language, which in turn can improve school performance and self-worth as children age.

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